

# **Utah Weekly Pertussis Update**

2018 data, through MMWR week ending March 24, 2018 (MMWR week 12)

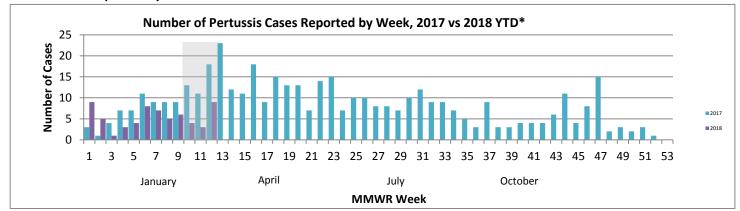
Data presented in this report are based on current data available and will be subject to change weekly.

#### **Data Summary**

| Total number of cases reported, 2018 year-to-date |         | Utah Incidence rate, 2018 year-to-date (YTD) per 100,000 |      |
|---|---------|--|------|
| (YTD)   | 64      | person-years   | 9.1  |
|   |         |  |      |
| Total number of cases reported 2017               | 439     | Utah Incidence rate, 2017 per 100,000 person-years       | 14.6 |
|   |         |  |      |
| Number of cases reported in past week             | 9       | National Incidence rate*, 2016 per 100,000 person-years. | 4.7  |
| Total number of cases reported, through same time |         |  |      |
| period 2017                                       | 102     | 2018 Hospitalizations                                    | 0    |
|   | <1      |  |      |
| Age groups with the highest rates                 | 15 - 24 | 2018 Cases in infants <1 year                            | 6    |

<sup>\*</sup>National Incidence Rate is updated as released by the Centers for Disease Control and Prevention.

#### Number of cases reported by week



<sup>\*</sup>Additional cases may have occurred, especially in the most recent 3 weeks that have not yet been reported, as indicated by the grayed out section of the graph above.

#### 2018 Year-to-Date Incidence Rates, By Age

|             | 2018  | 2016       |       |
|-------------|-------|------------|-------|
| Age (years) | Cases | population | Rate* |
| <1          | 6     | 51,162     | 51.0  |
| 1-4         | 6     | 202,288    | 12.9  |
| 5-14        | 17    | 520,247    | 14.2  |
| 15-24       | 17    | 491,359    | 15.0  |
| 25-34       | 3     | 448,845    | 2.9   |
| 35-44       | 7     | 410,933    | 7.4   |
| 45-54       | 5     | 314,060    | 6.9   |
| 55-64       | 0     | 291,159    | 0.0   |
| 65+         | 3     | 321,164    | 4.1   |
| Unknown     | 0     | -          | -     |
| Total       | 64    | 3,051,217  | 9.1   |

<sup>\*</sup> Rate is calculated per 100,000 person years.

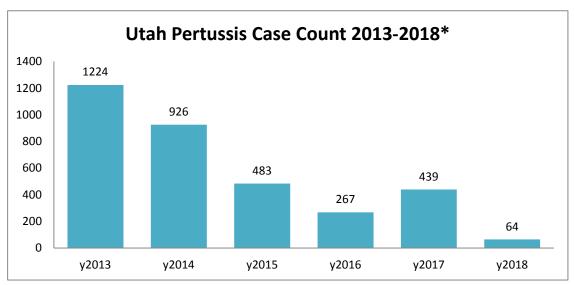
Infants less than 1 year of age have historically had the highest incidence rates of pertussis due to their susceptibility.

### School Age Incidence Rates, 2018 Year-to-Date

|              | Age     |                   | 2016       |       |
|--------------|---------|-------------------|------------|-------|
| Grade        | (years) | <b>2018 Cases</b> | Population | Rate* |
| Preschool    | 3-4     | 2                 | 100,804    | 8.6   |
| Kindergarten | 5       | 2                 | 50,541     | 17.2  |
| 1            | 6       | 2                 | 52,444     | 16.6  |
| 2            | 7       | 1                 | 52,797     | 8.2   |
| 3            | 8       | 1                 | 53,837     | 8.1   |
| 4            | 9       | 1                 | 53,515     | 8.1   |
| 5            | 10      | 4                 | 52,433     | 33.1  |
| 6            | 11      | 0                 | 52,420     | 0.0   |
| 7            | 12      | 3                 | 51,616     | 25.3  |
| 8            | 13      | 1                 | 51,136     | 8.5   |
| 9            | 14      | 2                 | 49,508     | 17.6  |
| 10           | 15      | 5                 | 49,763     | 43.7  |
| 11           | 16      | 7                 | 49,882     | 61.0  |
| 12           | 17      | 3                 | 48,431     | 26.9  |

<sup>\*</sup> Rate is calculated per 100,000 person-years. School age incidence rates were calculated using the average age of a student in each grade. High incidence rates in 5th and 6th grade may be due to waining immunity.

### Utah Case Counts of Pertussis, 2013-2018\* Year to Date



Pertussis tends to be cyclical. Reports have increased in Utah since 2010, peaked in 2012, and are currently trending downward.

<sup>\* 2018</sup> data includes pertussis cases reported year to date. 2013-2017 data reflects cases reported during the entire calendar year for each year.



# Incidence of Pertussis by Local Health Department, 2018 YTD

| Local Health Department | 2018 Cases | Rate* |
|-------------------------|------------|-------|
| Bear River              | 7          | 17.1  |
| Central Utah            | 0          | 0.0   |
| Davis County            | 8          | 10.2  |
| Salt Lake County        | 27         | 10.5  |
| San Juan County         | 0          | 0.0   |
| Southeast Utah          | 0          | 0.0   |
| Southwest Utah          | 1          | 1.9   |
| Summit County           | 1          | 10.8  |
| Tooele County           | 1          | 6.7   |
| TriCounty               | 0          | 0.0   |
| Utah County             | 7          | 5.1   |
| Wasatch County          | 2          | 28.5  |
| Weber-Morgan            | 10         | 16.8  |

<sup>\*</sup> Rate is calculated per 100,000 person-years using 2015 Utah population estimates.

